



DECLARATION

As the below-named inventors, we declare that:

Our residences, post office addresses, and citizenships are as stated below under our names.

We believe we are the original, first, and joint inventors of the invention entitled "METHODS AND COMPOSITIONS FOR DIAGNOSING AND TREATING ARTHRITIC DISORDERS AND REGULATING BONE MASS," which is described and claimed in the specification and claims of Patent Application No. 09/661,848, which we filed in the United States Patent and Trademark Office on September 14, 2000, and for which a patent is sought; and this application claims the benefit of U.S. Provisional Application No. 60/154,145, filed September 15, 1999.

We have reviewed and understand the contents of the above-entitled specification, including the claims, as amended by any amendment specifically referred to herein (if any).

We acknowledge our duty to disclose information of which we are aware which is material to the patentability and examination of this application in accordance with 37 C.F.R. § 1.56(a).

We further declare that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Robert Terkeltaub

Date March 14, 2001
Residence : City of San Diego, County of San Diego
State of California
Citizenship : United States of America
P.O. Address : 13211 Denara Road
San Diego, California 92130

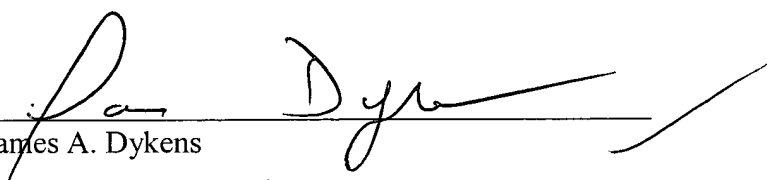

Anne N. Murphy

Date 3.13, 2001

Residence : City of Encinitas, County of San Diego
State of California

Citizenship : United States of America

P.O. Address : 310 Cole Ranch Road
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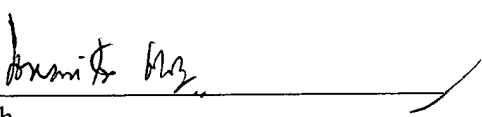

James A. Dykens

Date March 19 2001

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Soumitra S. Ghosh

Date 3/19/01

Residence : City of San Diego, County of San Diego
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Citizenship : United States of America

P.O. Address : 12334 Pathos Lane
San Diego, California 92129

Robert E. Davis

Robert E. Davis

Date March 19, 2001

Residence : City of San Diego, County of San Diego
State of California

Citizenship : United States of America

P.O. Address : 13272 Glencliff Way
San Diego, California 92130

Andrew E. Granston, Jr.

Andrew E. Granston, Jr.

Date March 19, 2001

Residence : City of San Diego, County of San Diego
State of California

Citizenship : United States of America

P.O. Address : 12229 Carmel Vista Road, Apt. 249
San Diego, California 92130

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(660088.441)



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Robert Terkeltaub, Anne N. Murphy, James A. Dykens, Soumitra S. Ghosh, Robert E. Davis and Andrew E. Granston, Jr.
Application No. : 09/661,848
Filed : September 14, 2000
For : METHODS AND COMPOSITIONS FOR DIAGNOSING AND TREATING ARTHRITIC DISORDERS AND REGULATING BONE MASS

Docket No. : 660088.441

Box Missing Parts
Commissioner for Patents
Washington, DC 20231

ELECTION UNDER 37 C.F.R. §§ 3.71 AND 3.73 AND POWER OF ATTORNEY

The undersigned, being a co-Assignee of the entire interest in the above-identified application by virtue of Assignments filed concurrently herewith, hereby elects, under 37 C.F.R. § 3.71, to prosecute the application to the exclusion of the inventors.

Assignee hereby appoints Richard W. Seed, Reg. No. 16,557; Robert J. Baynham, Reg. No. 22,846; George C. Rondeau, Jr., Reg. No. 28,893; David H. Deits, Reg. No. 28,066; William O. Ferron, Jr., Reg. No. 30,633; David J. Maki, Reg. No. 31,392; Richard G. Sharkey, Reg. No. 32,629; David V. Carlson, Reg. No. 31,153; Karl R. Hermanns, Reg. No. 33,507; Michael J. Donohue, Reg. No. 35,859; Jane E. R. Potter, Reg. No. 33,332; Robert Iannucci, Reg. No. 33,514; Lorraine Linford, Reg. No. 35,939; David W. Parker, Reg. No. 37,414; E. Russell Tarleton, Reg. No. 31,800; Ellen M. Bierman, Reg. No. 38,079; Brian G. Bodine, Reg. No. 40,520; Robert M. Ward, Reg. No. 26,517; Frank Abramonte, Reg. No. 38,066; Kevin S. Costanza, Reg. No. 37,801; Thomas E. Loop, Reg. No. 42,810; Stephen J. Rosenman, Reg. No. 43,058; Brian L. Johnson, Reg. No. 40,033; Susan D. Betcher, Reg. No. 43,498; William T. Christiansen, Reg. No. 44,614; Eric J. Gash, Reg. No. 46,274; Jeffrey C. Pepe, Reg. No. 46,985; Charles J. Rupnick, Reg. No. 43,068; Timothy L. Boller, Reg. No. P-47,435; and James M.

Verna, Reg. No. 33,287; comprising the firm of Seed Intellectual Property Law Group PLLC, 701 Fifth Avenue, Suite 6300, Seattle, Washington 98104-7092, as its attorneys to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. Please direct all calls to **Stephen J. Rosenman**. at (206) 622-4900 and telecopies to (206) 682-6031.

Please direct all communications to:

Stephen J. Rosenman, Esq.
Seed Intellectual Property Law Group PLLC
701 Fifth Avenue, Suite 6300
Seattle, Washington 98104-7092

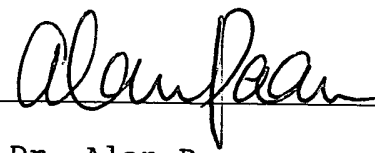
Pursuant to 37 C.F.R. § 3.73, the undersigned duly authorized designee of Assignee certifies that the evidentiary documents have been reviewed, specifically the Assignment to The Regents of the University of California filed concurrently herewith for recording, a copy of which is attached hereto, and certifies that to the best of my knowledge and belief, title remains in the name of the Assignee.

The Regents of the University of California
ASSIGNEE

3/19/01

DATE

Name



Dr. Alan Paau

Director, Technology Transfer UCSD

Title

Enclosure:

Copy of Assignment

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Verna, Reg. No. 33,287; comprising the firm of Seed Intellectual Property Law Group PLLC, 701 Fifth Avenue, Suite 6300, Seattle, Washington 98104-7092, as its attorneys to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. Please direct all calls to **Stephen J. Rosenman** at (206) 622-4900 and telecopies to (206) 682-6031.

Please direct all communications to:

Stephen J. Rosenman, Esq.
Seed Intellectual Property Law Group PLLC
701 Fifth Avenue, Suite 6300
Seattle, Washington 98104-7092

Pursuant to 37 C.F.R. § 3.73, the undersigned duly authorized designee of Assignee certifies that the evidentiary documents have been reviewed, specifically the Assignment to MITOKOR filed concurrently herewith for recording, a copy of which is attached hereto, and certifies that to the best of my knowledge and belief, title remains in the name of the Assignee.

MitoKor
ASSIGNEE

March 15, 2001

DATE

Thomas G. Sanders

Thomas G. Sanders, Ph.D.

Vice President of Business Development

Enclosure:

Copy of Assignment

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ASSIGNMENT

WHEREAS, I, Robert Terkeltaub, herein after referred to as ASSIGNOR, having a post office address of 13211 Denara Road, San Diego, California 92130, am a joint inventor of an invention entitled "METHODS AND COMPOSITIONS FOR DIAGNOSING AND TREATING ARTHRITIC DISORDERS AND REGULATING BONE MASS", as described and claimed in the specification for which an application for United States letters patent was filed on September 14, 2000, and assigned Application No. 09/661,848; this application claims the benefit of U.S. Provisional Application No. 60/154,145, filed September 15, 1999.

WHEREAS, The Regents of The University of California (hereinafter referred to as ASSIGNEE), a corporation of the State of California having its statewide administrative offices located at 1111 Franklin Street, Oakland, California 94607-5200, is desirous of acquiring the ASSIGNOR'S right, title and interest in and to the invention and in and to any letters patent that may be granted thereof in the United States and in any and all foreign countries;

NOW, THEREFORE, in exchange for good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNOR hereby sells, assigns, and transfers unto said ASSIGNEE his right, title and interest in and to said invention, said application and any and all letters patent which may be granted for said invention in the United States of America and its territorial possessions and in any and all foreign countries, and in any and all divisions, reissues and continuations thereof, including the right to file foreign applications directly in the name of ASSIGNEE and to claim priority rights deriving from said United States application to which said foreign applications are entitled by virtue of international convention, treaty or otherwise, said invention, application and all letters patent on said invention to be held and enjoyed by ASSIGNEE and its successors and assigns as fully and entirely as the same would have been held and enjoyed by ASSIGNOR had this assignment, transfer and sale not been made. ASSIGNOR hereby authorizes and requests the Commissioner of Patents and Trademarks to issue all letters patent on said invention to ASSIGNEE. ASSIGNOR agrees to execute all instruments and documents required for the making and prosecution of applications for the United

Date 3/19/01

Robert Terkeltaub
Robert Terkeltaub

State of California)
) ss.
County of San Diego)

I certify that I know or have satisfactory evidence that Robert Terkeltaub is the person who appeared before me, and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the purposes mentioned in the instrument.

Dated 3/19/01

Signature of
Notary Public Kristen M. Cole

Printed Name KRISTINE M. COLE

My Appointment Expires 5/21/03



ASSIGNMENT

WHEREAS, we, Anne N. Murphy, James A. Dykens, Soumitra S. Ghosh, Robert E. Davis, Andrew E. Granston Jr., along with Robert Terkeltaub (hereinafter referred to as ASSIGNORS), having post office addresses of 310 Cole Ranch Road, Encinitas, California 92024; 2117 Pleasant Grove Road, Encinitas, California 92024; 12334 Pathos Lane, San Diego, California 92129; 13272 Glencliff Way, San Diego, California 92130, and 12229 Carmel Vista Road, Apt. 249, San Diego, California 92130, respectively, are the joint inventors of an invention entitled "METHODS AND COMPOSITIONS FOR DIAGNOSING AND TREATING ARTHRITIC DISORDERS AND REGULATING BONE MASS," as described and claimed in the specification for which an application for United States letters patent was filed on September 14, 2000, and assigned Application No. 09/661,848.

WHEREAS, MITOKOR (hereinafter referred to as ASSIGNEE), a corporation of the State of California having a place of business at 11494 Sorrento Valley Road, San Diego, California 92121, is desirous of acquiring the entire right, title and interest in and to the invention and in and to any letters patent that may be granted therefor in the United States and in any and all foreign countries;

NOW, THEREFORE, in exchange for good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNORS hereby sell, assign and transfer unto said ASSIGNEE the entire right, title and interest in and to said invention, said application and any and all letters patent which may be granted for said invention in the United States of America and its territorial possessions and in any and all foreign countries, and in any and all divisions, reissues and continuations thereof, including the right to file foreign applications directly in the name of ASSIGNEE and to claim priority rights deriving from said United States application to which said foreign applications are entitled by virtue of international convention, treaty or otherwise, said invention, application and all letters patent on said invention to be held and enjoyed by ASSIGNEE and its successors and assigns as fully and entirely as the same would have been held and enjoyed by ASSIGNORS had this assignment, transfer and sale not been made. ASSIGNORS hereby authorize and request the Commissioner of Patents and Trademarks to issue all letters patent on said invention to ASSIGNEE. ASSIGNORS agree to execute all instruments and documents required for the making and prosecution of applications for United States and foreign letters patent on said invention, for litigation regarding letters patent, or for the purpose of protecting title to said invention or letters patent therefor.

March 13, 2001
Date

[Signature]
Anne N. Murphy

State of California)
County of San Diego)

SS.

I certify that I know or have satisfactory evidence that Anne N. Murphy is the person who appeared before me, and said person acknowledged that she signed this instrument and acknowledged it to be her free and voluntary act for the uses and purposes mentioned in the instrument.



Dated March 13, 2001

Signature of Notary Public *Alice A. Roder*

Printed Name Alice A. Roder

My appointment expires July 22, 2004

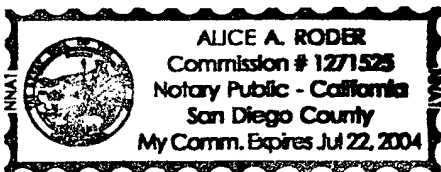
March 19, 2001
Date

[Signature]
James A. Dykens

State of California)
County of San Diego)

SS.

I certify that I know or have satisfactory evidence that James A. Dykens is the person who appeared before me, and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in the instrument.



Dated March 19, 2001

Signature of Notary Public *Alice A. Roder*

Printed Name Alice A. Roder

My appointment expires July 22, 2004

3/19/01
Date

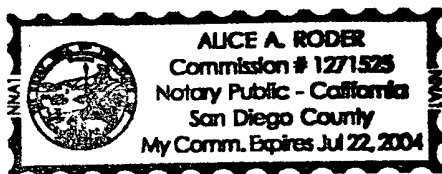
Soumitra S. Ghosh
Soumitra S. Ghosh

State of California

County of San Diego

SS.

I certify that I know or have satisfactory evidence that Soumitra S. Ghosh is the person who appeared before me, and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in the instrument.



Dated March 19, 2001

Signature of Notary Public Alice A. Roder

Printed Name Alice A. Roder

My appointment expires July 22, 2004

March 19, 2001
Date

Robert E. Davis
Robert E. Davis

State of California

County of San Diego

SS.

I certify that I know or have satisfactory evidence that Robert E. Davis is the person who appeared before me, and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in the instrument.



Dated March 19, 2001

Signature of Notary Public Alice A. Roder

Printed Name Alice A. Roder

My appointment expires July 22, 2004

March 19, 2001
Date

Andrew E. Granston, Jr.
Andrew E. Granston, Jr.

State of California)

County of San Diego)

ss.

I certify that I know or have satisfactory evidence that Andrew E. Granston, Jr. is the person who appeared before me, and said person acknowledged that he signed this instrument and acknowledged it to be his free and voluntary act for the uses and purposes mentioned in the instrument.



Dated March 19, 2001

Signature of
Notary Public Alice A. Roder

Printed Name Alice A. Roder

My appointment expires July 22, 2004